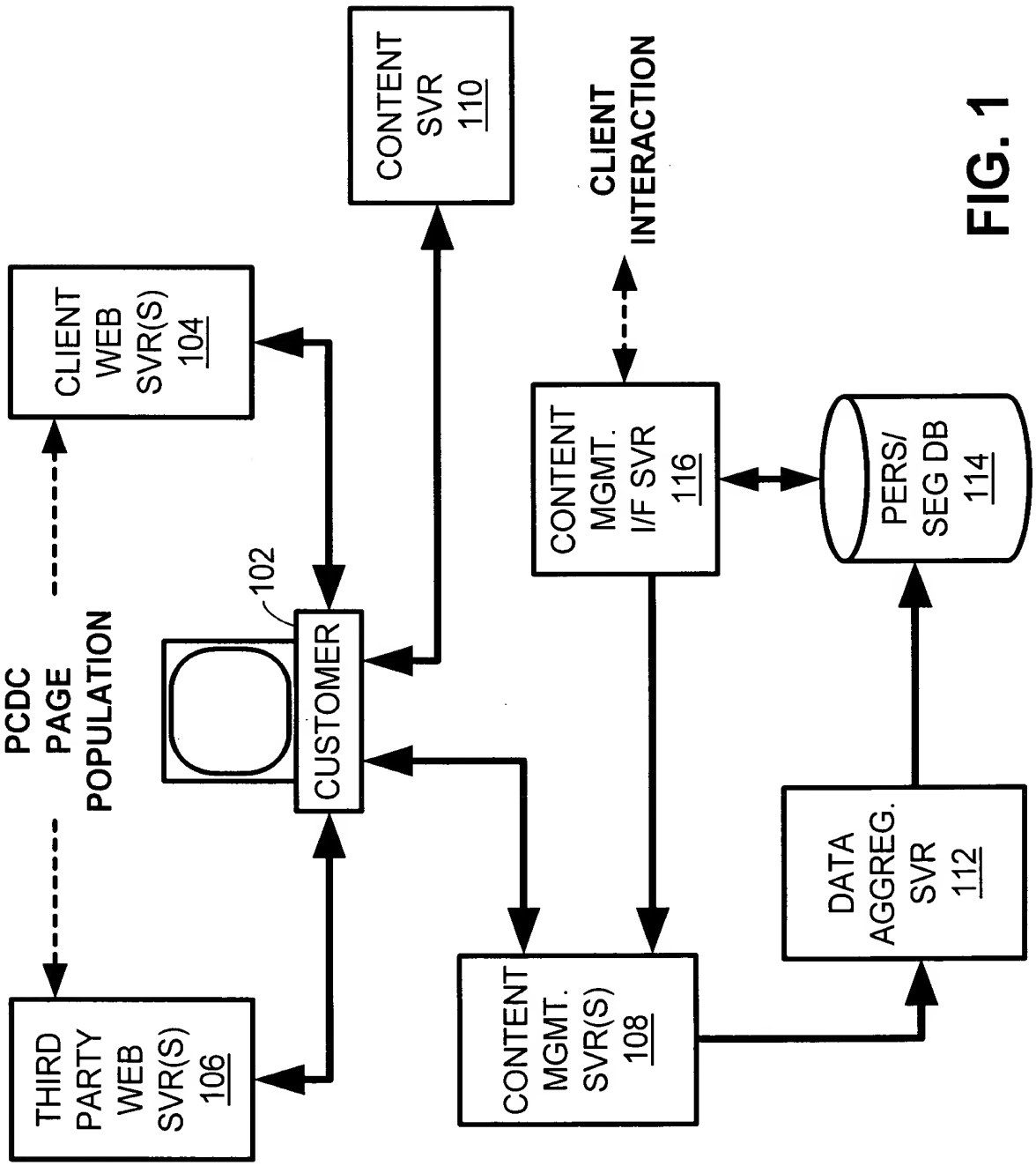
CONTENT SVR 110
CLIENT INTERACTION
CLIENT WEB SVR(S) 104
PCDC PAGE POPULATION
102
CUSTOMER
CONTENT MGMT. I/F SVR 116
PERS/ SEG DB 114
THIRD PARTY WEB SVR(S) 106
CONTENT MGMT. SVR(S) 108
DATA AGGREG. SVR 112

FIG. 1

DO NOT REMOVE

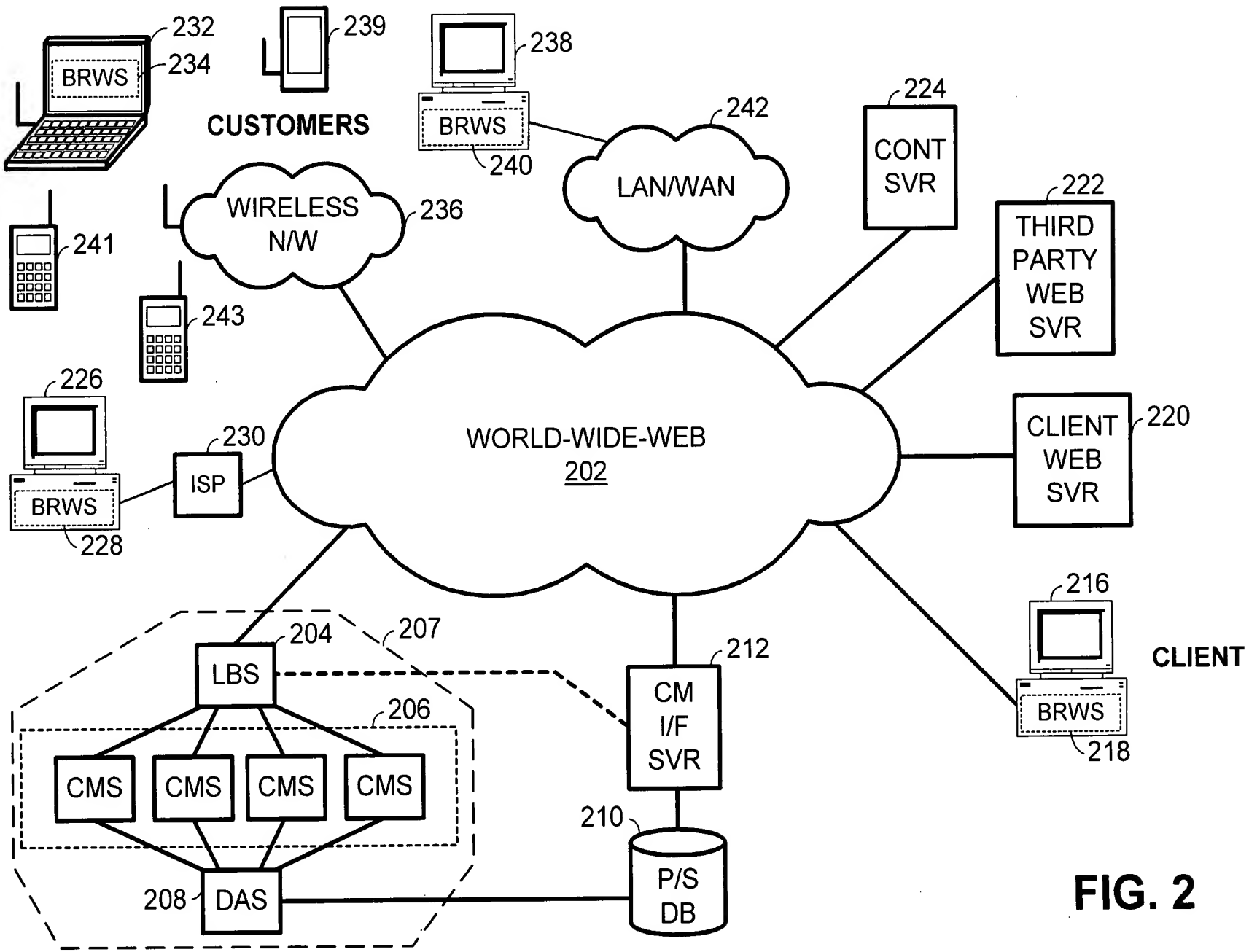

FIG. 2

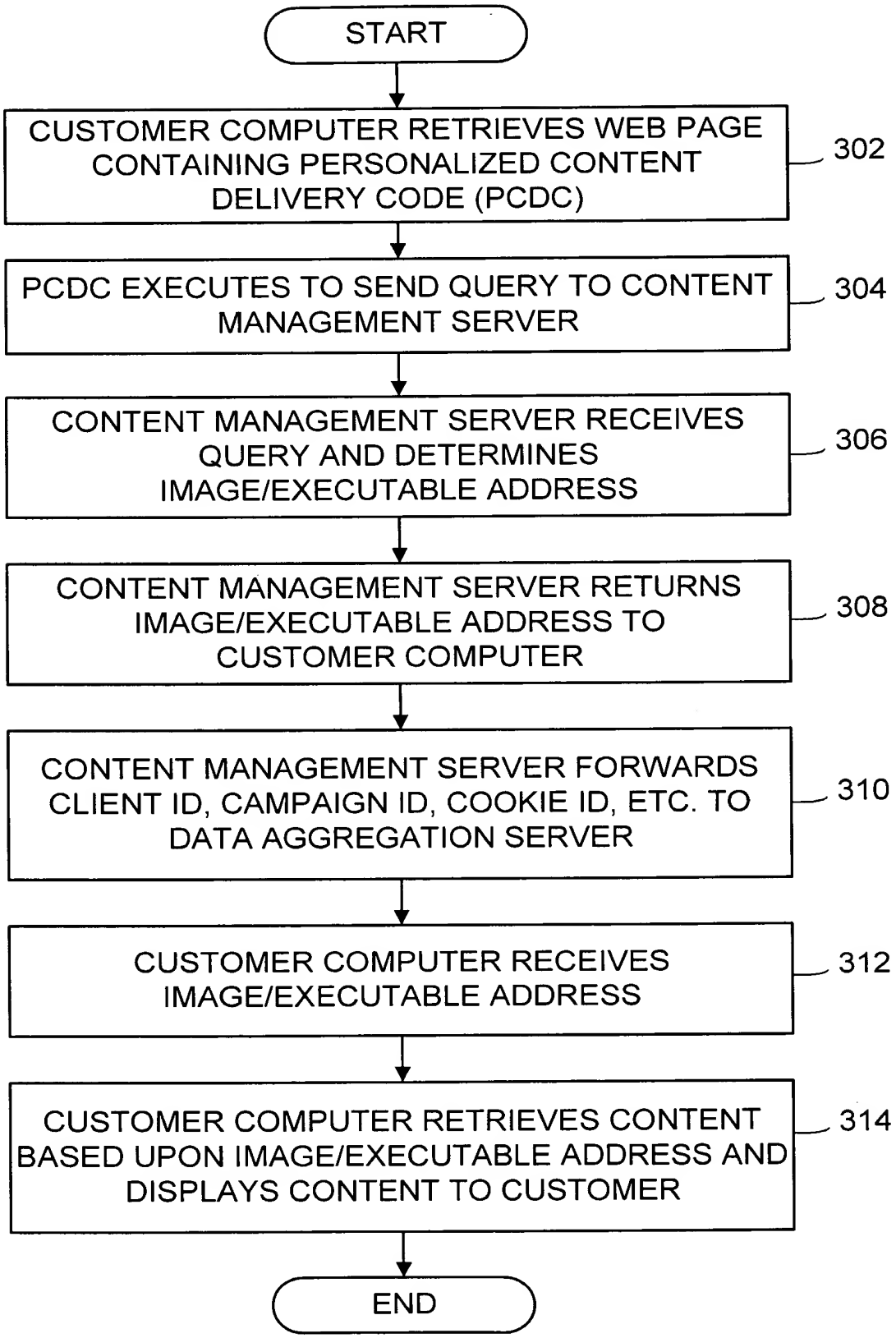
START
CUSTOMER COMPUTER RETRIEVES WEB PAGE CONTAINING PERSONALIZED CONTENT DELIVERY CODE (PCDC)
302
PCDC EXECUTES TO SEND QUERY TO CONTENT MANAGEMENT SERVER
304
CONTENT MANAGEMENT SERVER RECEIVES QUERY AND DETERMINES IMAGE/EXECUTABLE ADDRESS
306
CONTENT MANAGEMENT SERVER RETURNS IMAGE/EXECUTABLE ADDRESS TO CUSTOMER COMPUTER
308
CONTENT MANAGEMENT SERVER FORWARDS CLIENT ID, CAMPAIGN ID, COOKIE ID, ETC. TO DATA AGGREGATION SERVER
310
CUSTOMER COMPUTER RECEIVES IMAGE/EXECUTABLE ADDRESS
312
CUSTOMER COMPUTER RETRIEVES CONTENT BASED UPON IMAGE/EXECUTABLE ADDRESS AND DISPLAYS CONTENT TO CUSTOMER
314
END

FIG. 3

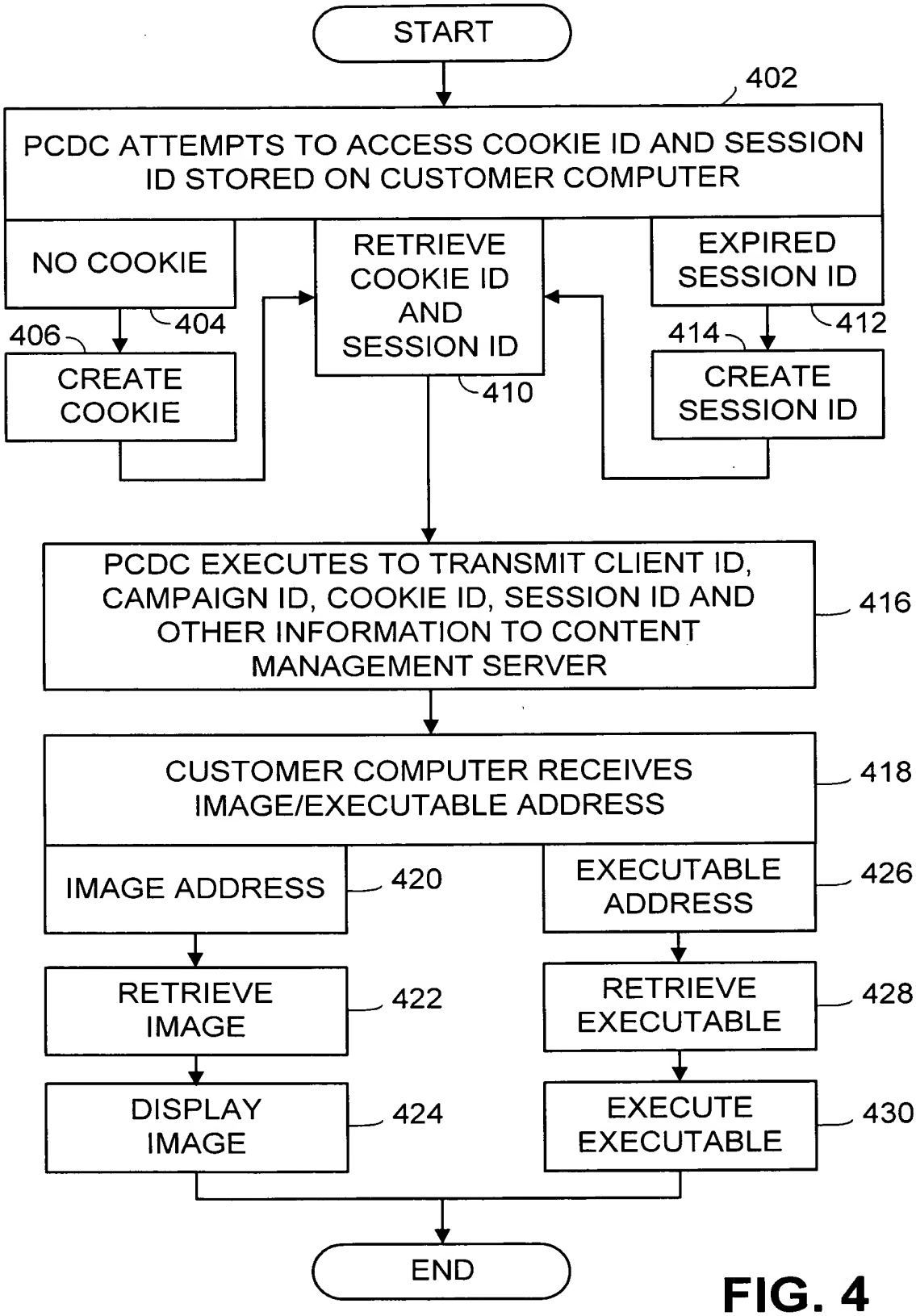
START
402
PCDC ATTEMPTS TO ACCESS COOKIE ID AND SESSION ID STORED ON CUSTOMER COMPUTER
NO COOKIE
404
406
CREATE COOKIE
RETRIEVE COOKIE ID AND SESSION ID
410
EXPIRED SESSION ID
412
414
CREATE SESSION ID
PCDC EXECUTES TO TRANSMIT CLIENT ID, CAMPAIGN ID, COOKIE ID, SESSION ID AND OTHER INFORMATION TO CONTENT MANAGEMENT SERVER
416
CUSTOMER COMPUTER RECEIVES IMAGE/EXECUTABLE ADDRESS
418
IMAGE ADDRESS
420
RETRIEVE IMAGE
422
DISPLAY IMAGE
424
EXECUTABLE ADDRESS
426
RETRIEVE EXECUTABLE
428
EXECUTE EXECUTABLE
430
END

FIG. 4

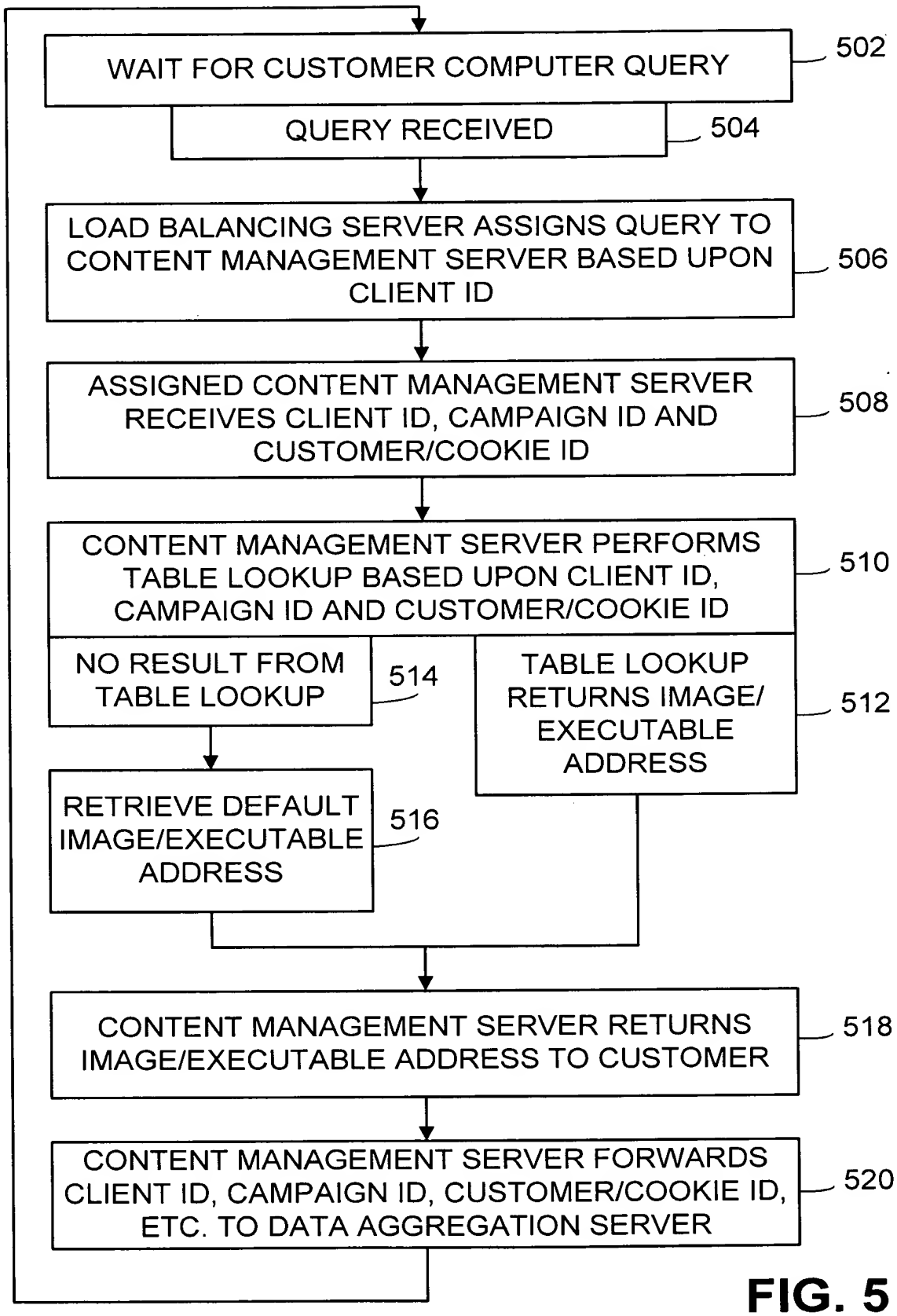
WAIT FOR CUSTOMER COMPUTER QUERY
502
QUERY RECEIVED
504
LOAD BALANCING SERVER ASSIGNS QUERY TO CONTENT MANAGEMENT SERVER BASED UPON CLIENT ID
506
ASSIGNED CONTENT MANAGEMENT SERVER RECEIVES CLIENT ID, CAMPAIGN ID AND CUSTOMER/COOKIE ID
508
CONTENT MANAGEMENT SERVER PERFORMS TABLE LOOKUP BASED UPON CLIENT ID, CAMPAIGN ID AND CUSTOMER/COOKIE ID
510
NO RESULT FROM TABLE LOOKUP
514
TABLE LOOKUP RETURNS IMAGE/ EXECUTABLE ADDRESS
512
RETRIEVE DEFAULT IMAGE/EXECUTABLE ADDRESS
516
CONTENT MANAGEMENT SERVER RETURNS IMAGE/EXECUTABLE ADDRESS TO CUSTOMER
518
CONTENT MANAGEMENT SERVER FORWARDS CLIENT ID, CAMPAIGN ID, CUSTOMER/COOKIE ID, ETC. TO DATA AGGREGATION SERVER
520

FIG. 5

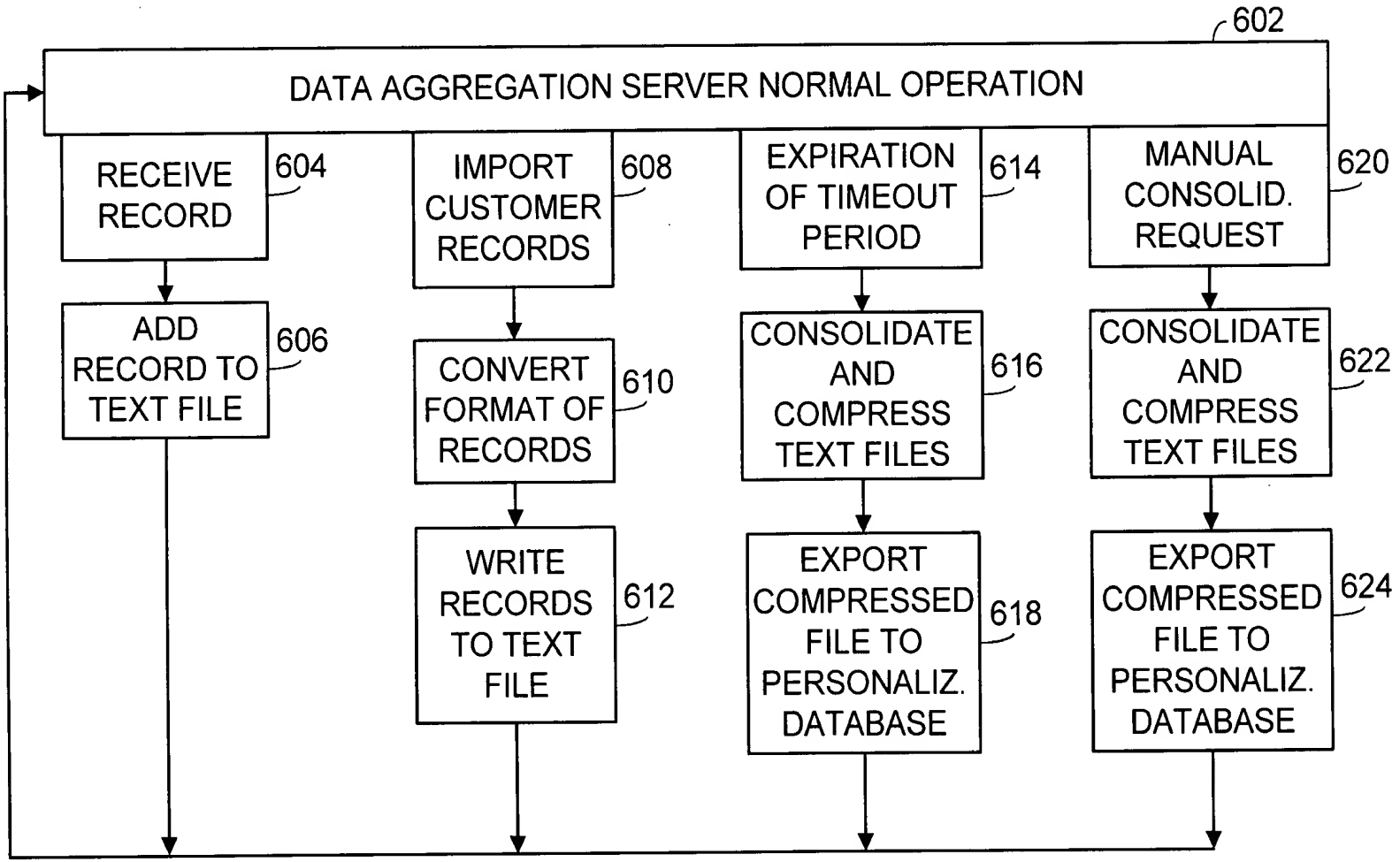
602
DATA AGGREGATION SERVER NORMAL OPERATION
RECEIVE RECORD
604
ADD RECORD TO TEXT FILE
606
IMPORT CUSTOMER RECORDS
608
CONVERT FORMAT OF RECORDS
610
WRITE RECORDS TO TEXT FILE
612
EXPIRATION OF TIMEOUT PERIOD
614
CONSOLIDATE AND COMPRESS TEXT FILES
616
EXPORT COMPRESSED FILE TO PERSONALIZ. DATABASE
618
MANUAL CONSOLID. REQUEST
620
CONSOLIDATE AND COMPRESS TEXT FILES
622
EXPORT COMPRESSED FILE TO PERSONALIZ. DATABASE
624

FIG. 6

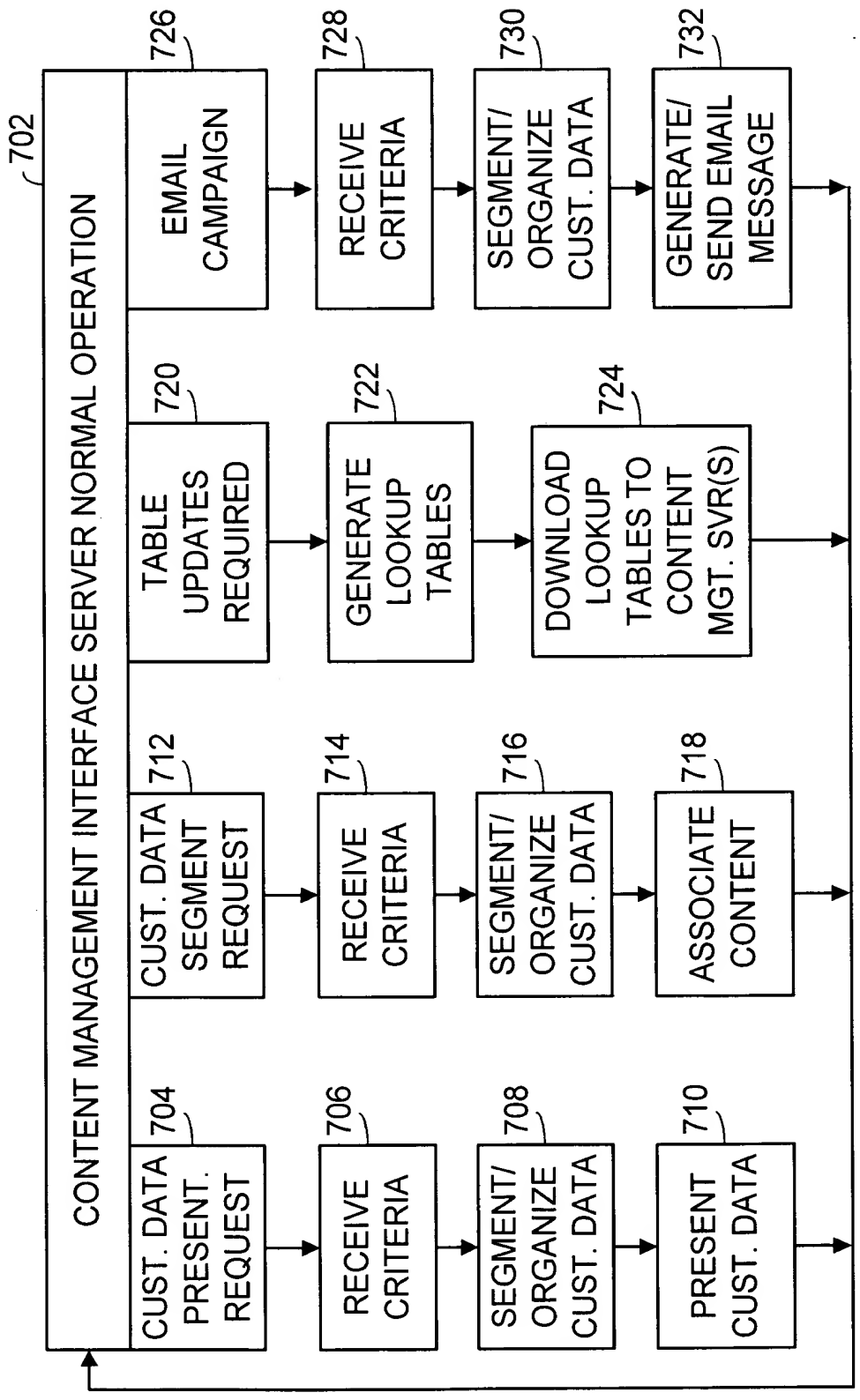
CONTENT MANAGEMENT INTERFACE SERVER NORMAL OPERATION
702
CUST. DATA PRESENT. REQUEST
704
RECEIVE CRITERIA
706
SEGMENT/ ORGANIZE CUST. DATA
708
PRESENT CUST. DATA
710
CUST. DATA SEGMENT REQUEST
712
RECEIVE CRITERIA
714
SEGMENT/ ORGANIZE CUST. DATA
716
ASSOCIATE CONTENT
718
TABLE UPDATES REQUIRED
720
GENERATE LOOKUP TABLES
722
DOWNLOAD LOOKUP TABLES TO CONTENT MGT. SVR(S)
724
EMAIL CAMPAIGN
726
RECEIVE CRITERIA
728
SEGMENT/ ORGANIZE CUST. DATA
730
GENERATE/ SEND EMAIL MESSAGE
732

FIG. 7

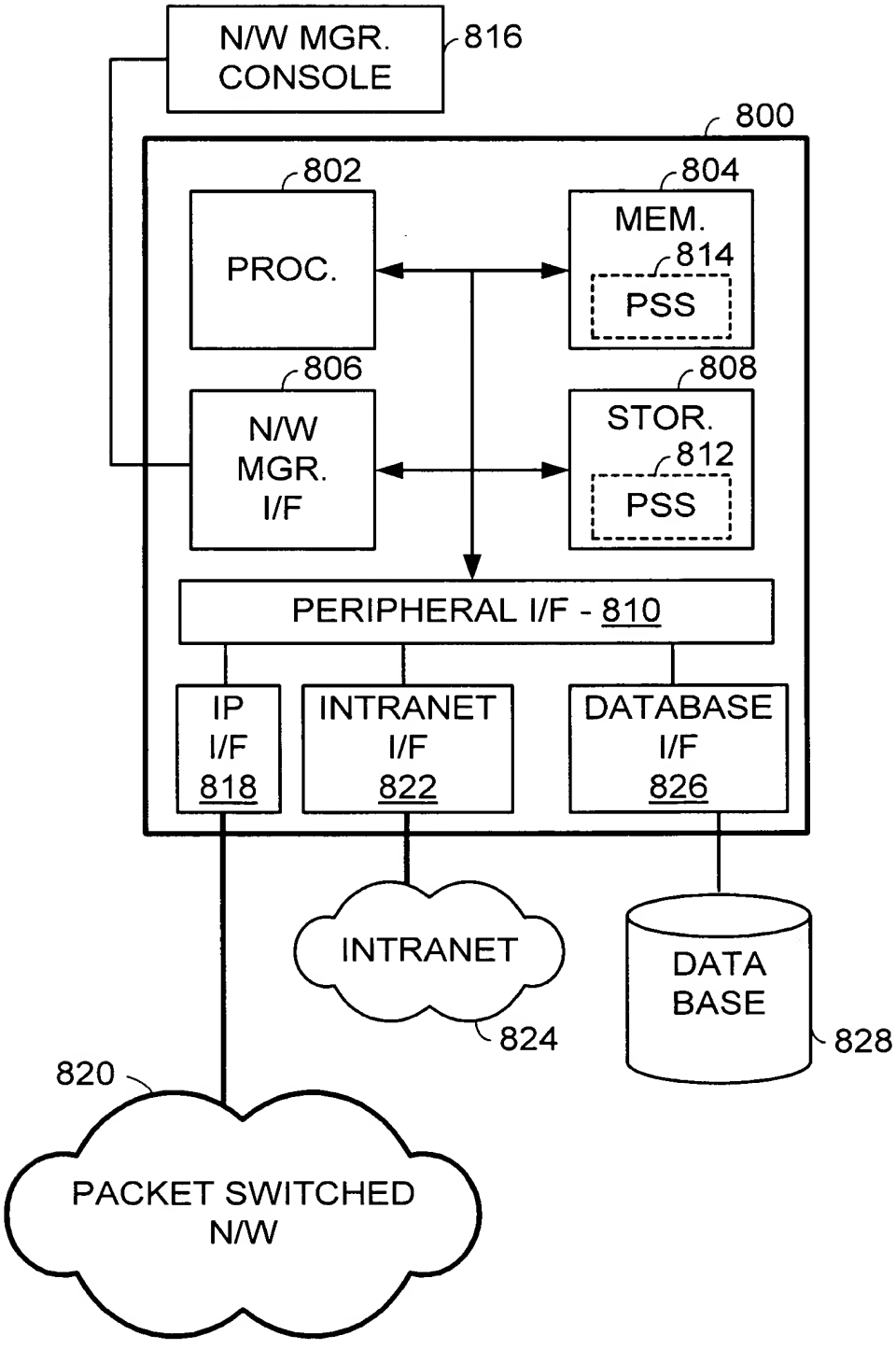
N/W MGR. CONSOLE
816
800
802
804
PROC.
MEM.
814
PSS
806
808
N/W MGR. I/F
STOR.
812
PSS
PERIPHERAL I/F - 810
IP I/F 818
INTRANET I/F 822
DATABASE I/F 826
INTRANET
824
DATA BASE
828
820
PACKET SWITCHED N/W

FIG. 8

DO NOT REMOVE

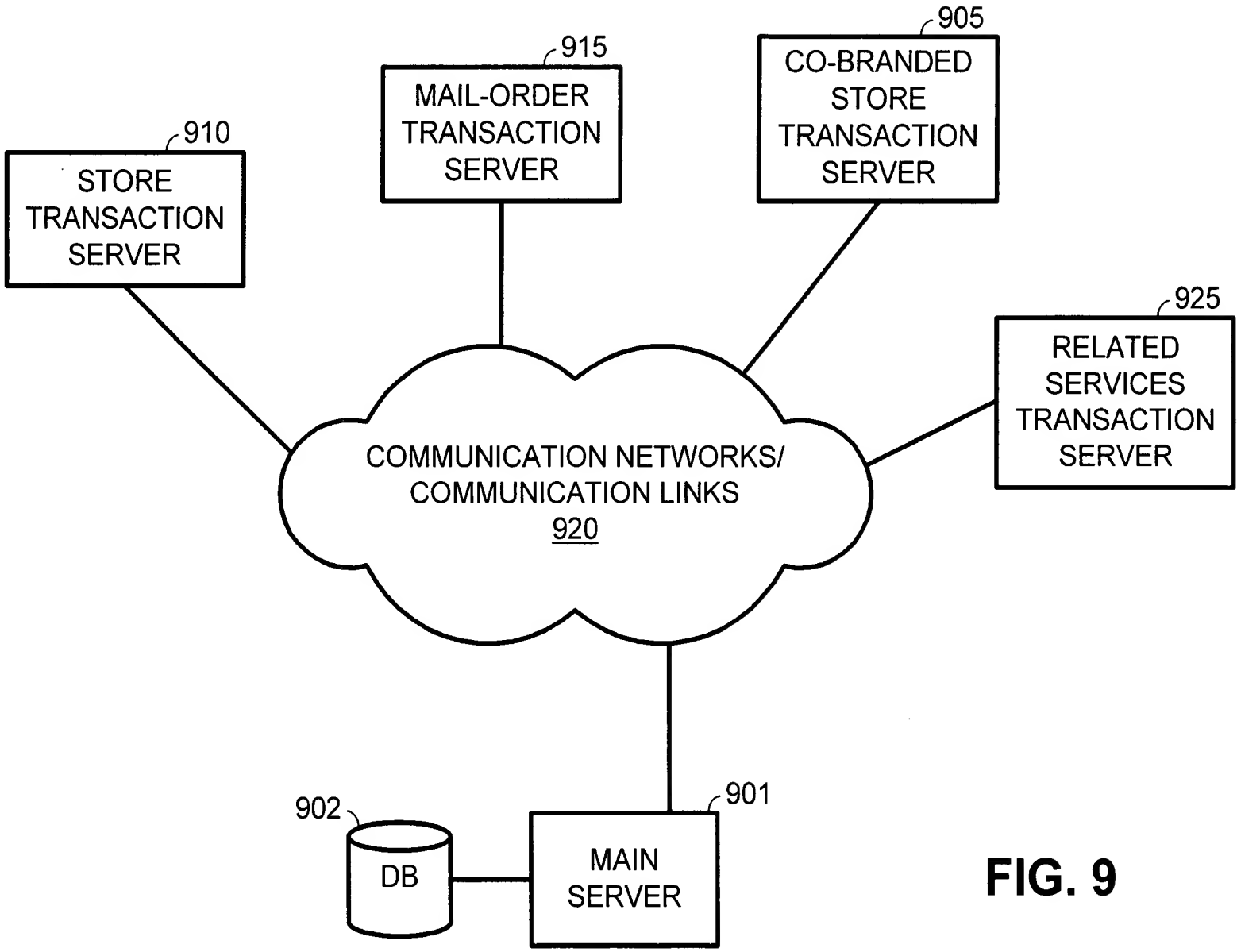

FIG. 9

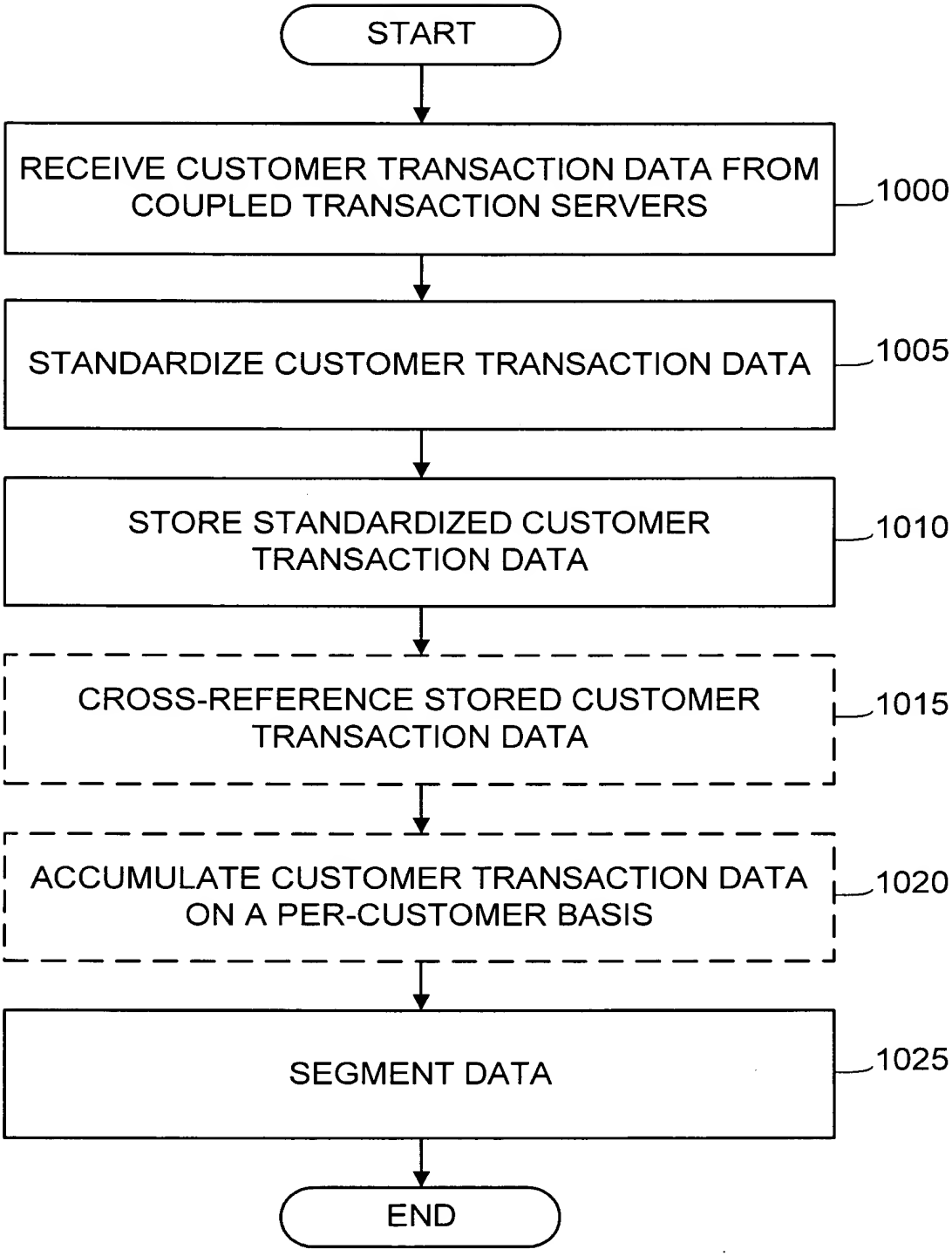
START
RECEIVE CUSTOMER TRANSACTION DATA FROM COUPLED TRANSACTION SERVERS
1000
STANDARDIZE CUSTOMER TRANSACTION DATA
1005
STORE STANDARDIZED CUSTOMER TRANSACTION DATA
1010
CROSS-REFERENCE STORED CUSTOMER TRANSACTION DATA
1015
ACCUMULATE CUSTOMER TRANSACTION DATA ON A PER-CUSTOMER BASIS
1020
SEGMENT DATA
1025
END

FIG. 10

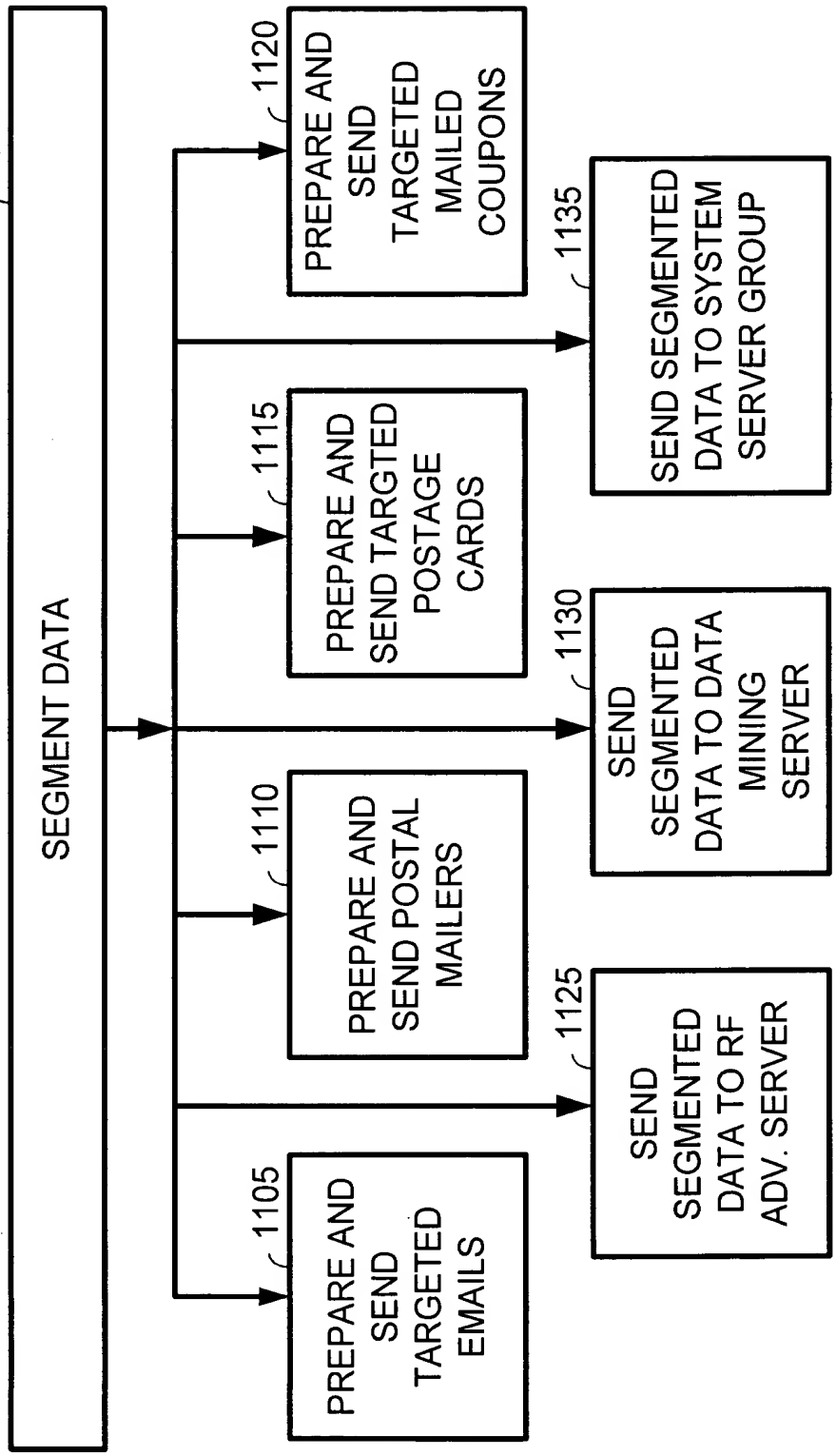
1025
SEGMENT DATA
1105
PREPARE AND SEND TARGETED EMAILS
1110
PREPARE AND SEND POSTAL MAILERS
1115
PREPARE AND SEND TARGTED POSTAGE CARDS
1120
PREPARE AND SEND TARGETED MAILED COUPONS
1125
SEND SEGMENTED DATA TO RF ADV. SERVER
1130
SEND SEGMENTED DATA TO DATA MINING SERVER
1135
SEND SEGMENTED DATA TO SYSTEM SERVER GROUP

FIG. 11

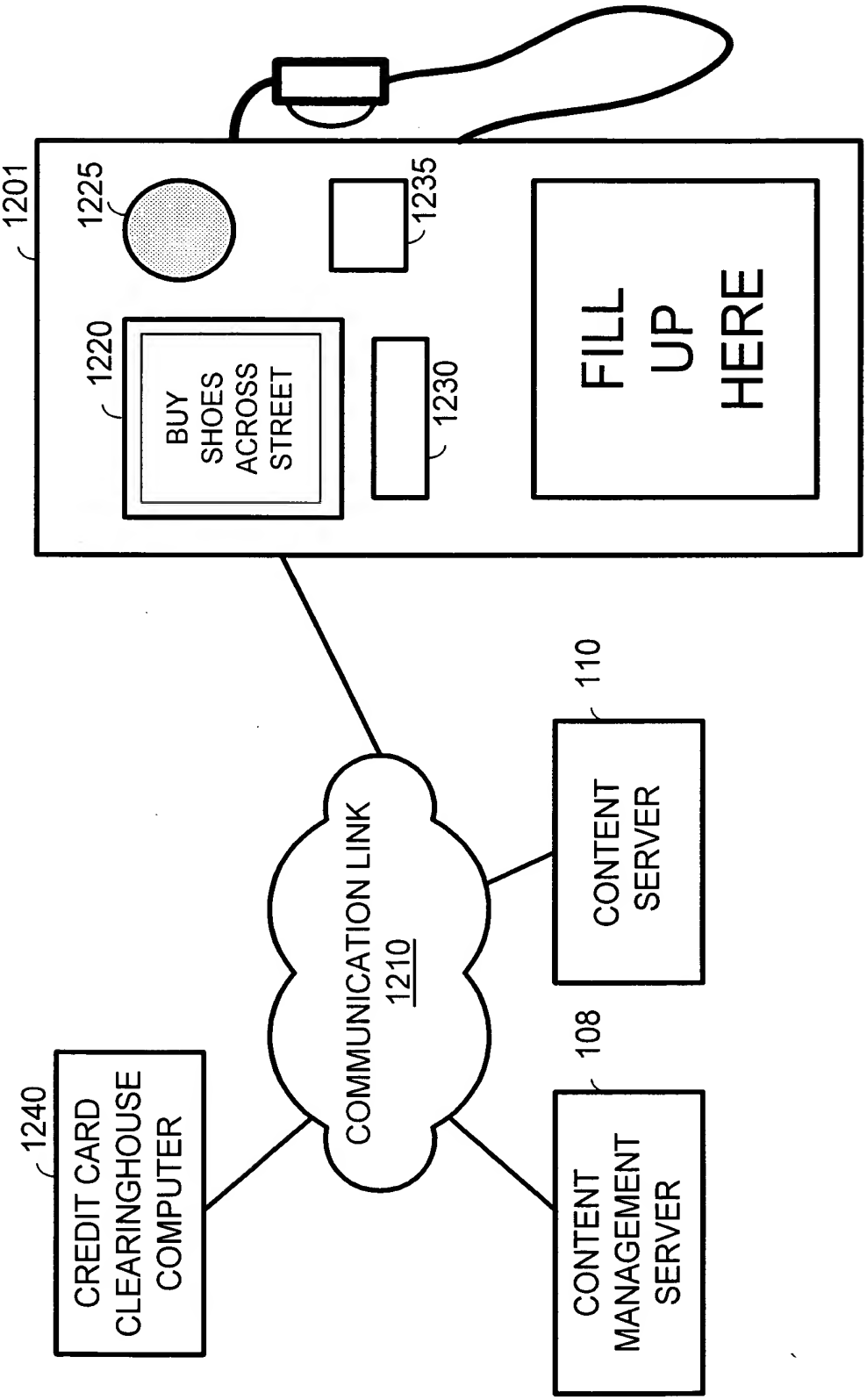
1201
1225
1235
1220
BUY SHOES ACROSS STREET
1230
FILL UP HERE
COMMUNICATION LINK
1210
110
CONTENT SERVER
108
CONTENT MANAGEMENT SERVER
1240
CREDIT CARD CLEARINGHOUSE COMPUTER

FIG. 12

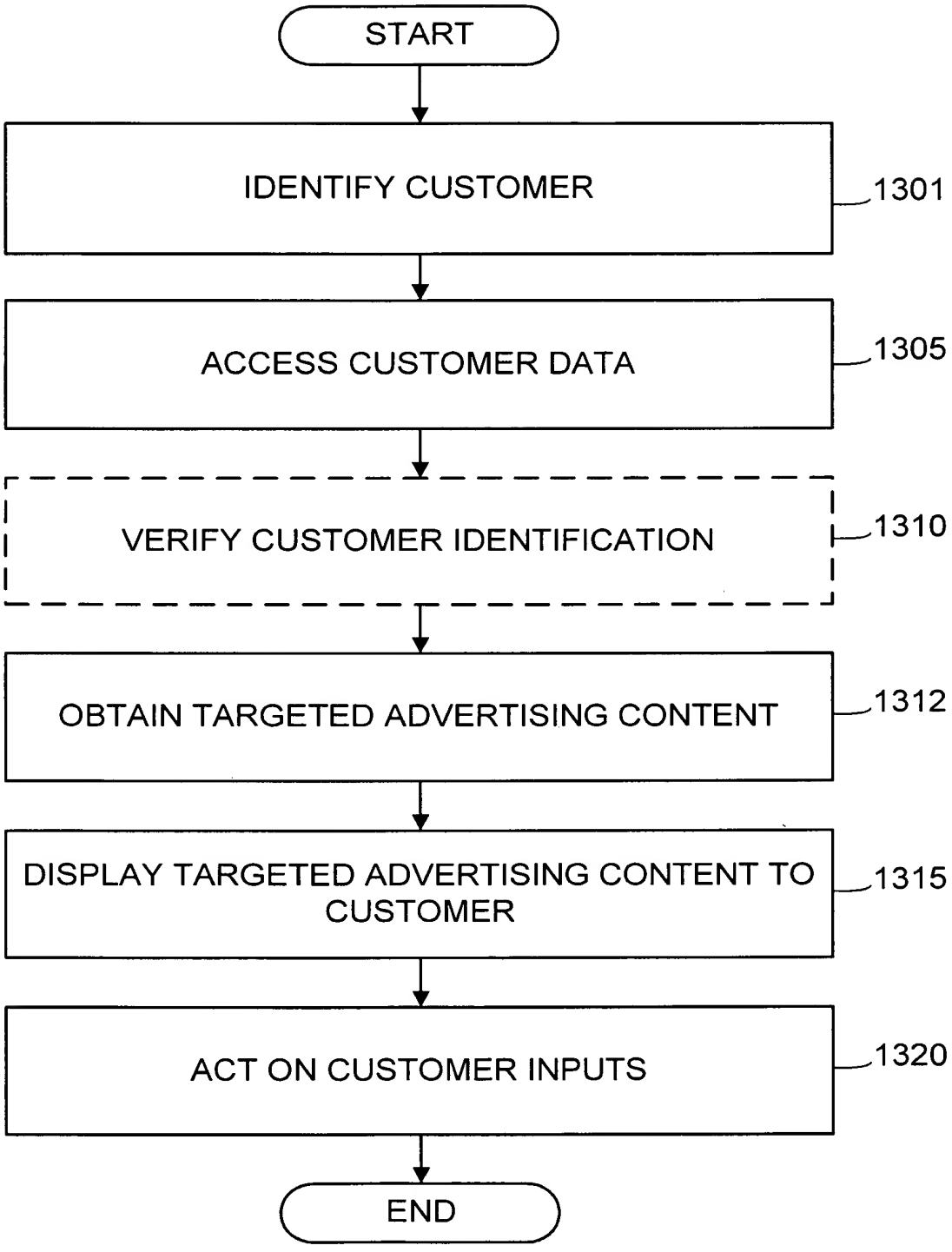
START
IDENTIFY CUSTOMER
1301
ACCESS CUSTOMER DATA
1305
VERIFY CUSTOMER IDENTIFICATION
1310
OBTAIN TARGETED ADVERTISING CONTENT
1312
DISPLAY TARGETED ADVERTISING CONTENT TO CUSTOMER
1315
ACT ON CUSTOMER INPUTS
1320
END

FIG. 13

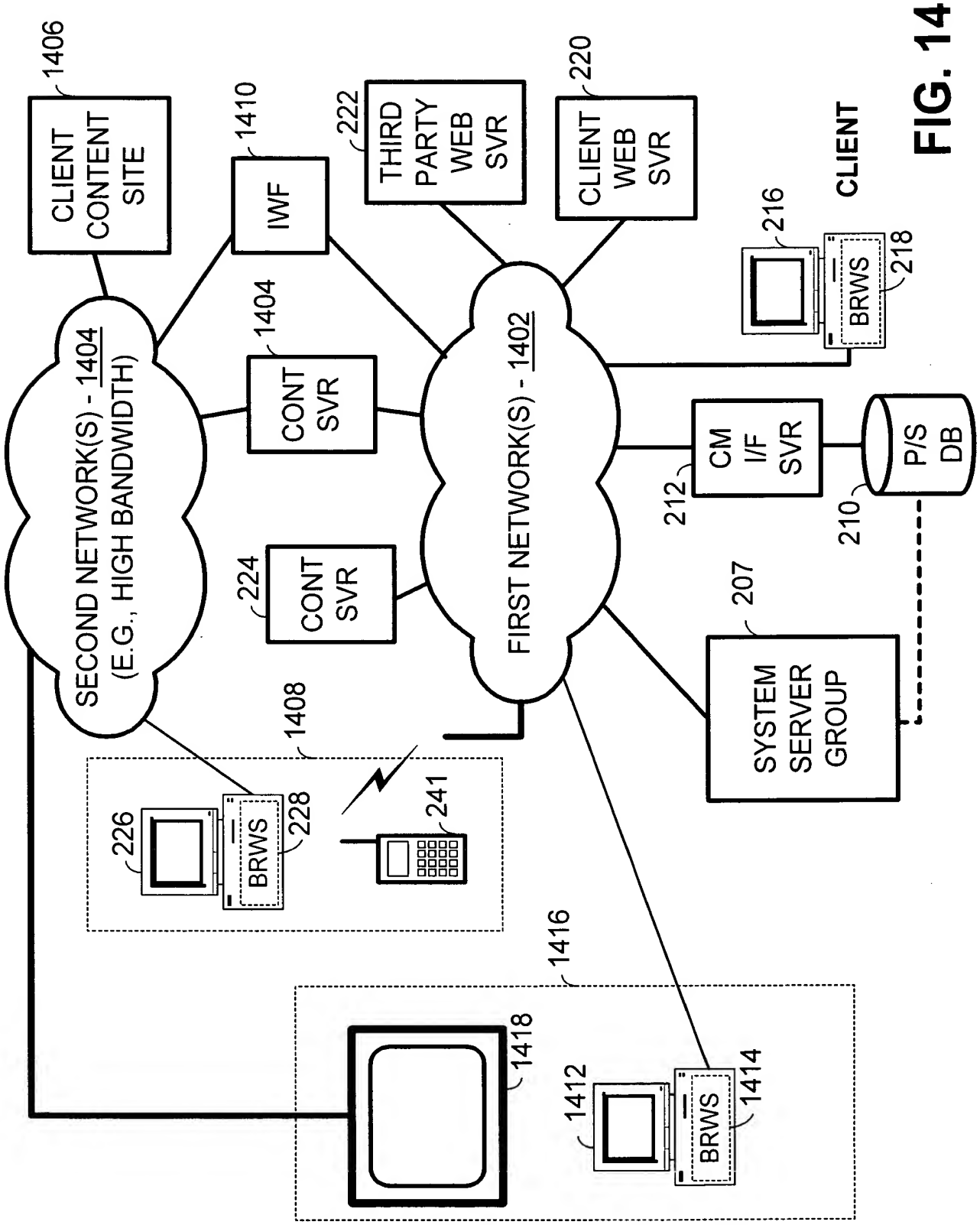
CLIENT CONTENT SITE
1406
IWF
1410
THIRD PARTY WEB SVR
222
CLIENT WEB SVR
220
CLIENT
216
BRWS
218
SECOND NETWORK(S) - 1404 (E.G., HIGH BANDWIDTH)
CONT SVR
1404
FIRST NETWORK(S) - 1402
CM I/F SVR
212
P/S DB
210
CONT SVR
224
207
SYSTEM SERVER GROUP
1408
226
BRWS
228
241
1416
1418
1412
BRWS
1414

FIG. 14

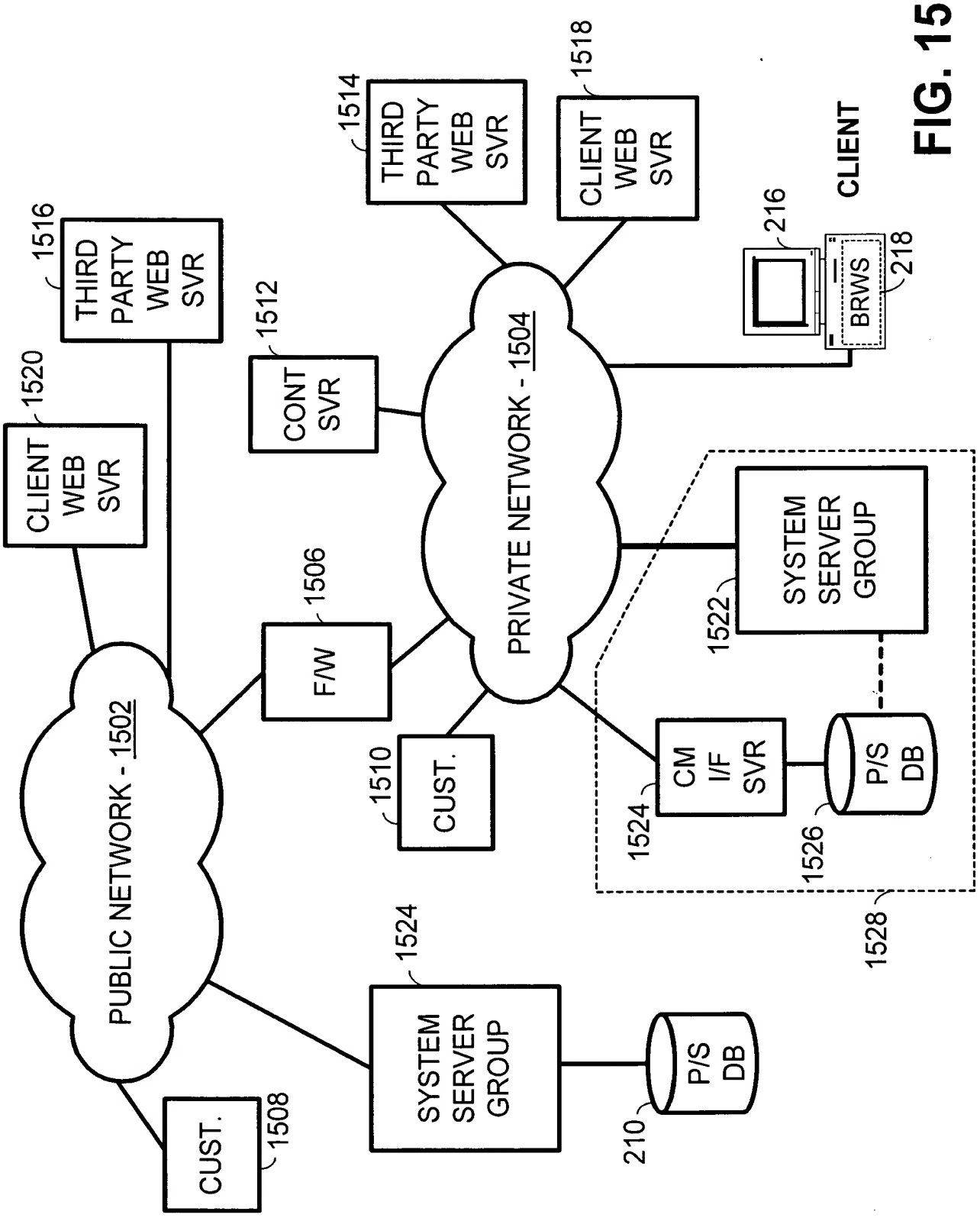
PUBLIC NETWORK - 1502
PRIVATE NETWORK - 1504
CUST. 1508
SYSTEM SERVER GROUP 1524
P/S DB 210
F/W 1506
CUST. 1510
CONT SVR 1512
THIRD PARTY WEB SVR 1516
CLIENT WEB SVR 1520
THIRD PARTY WEB SVR 1514
CLIENT WEB SVR 1518
CLIENT
216
BRWS 218
SYSTEM SERVER GROUP 1522
CM I/F SVR 1524
P/S DB 1526
1528

FIG. 15

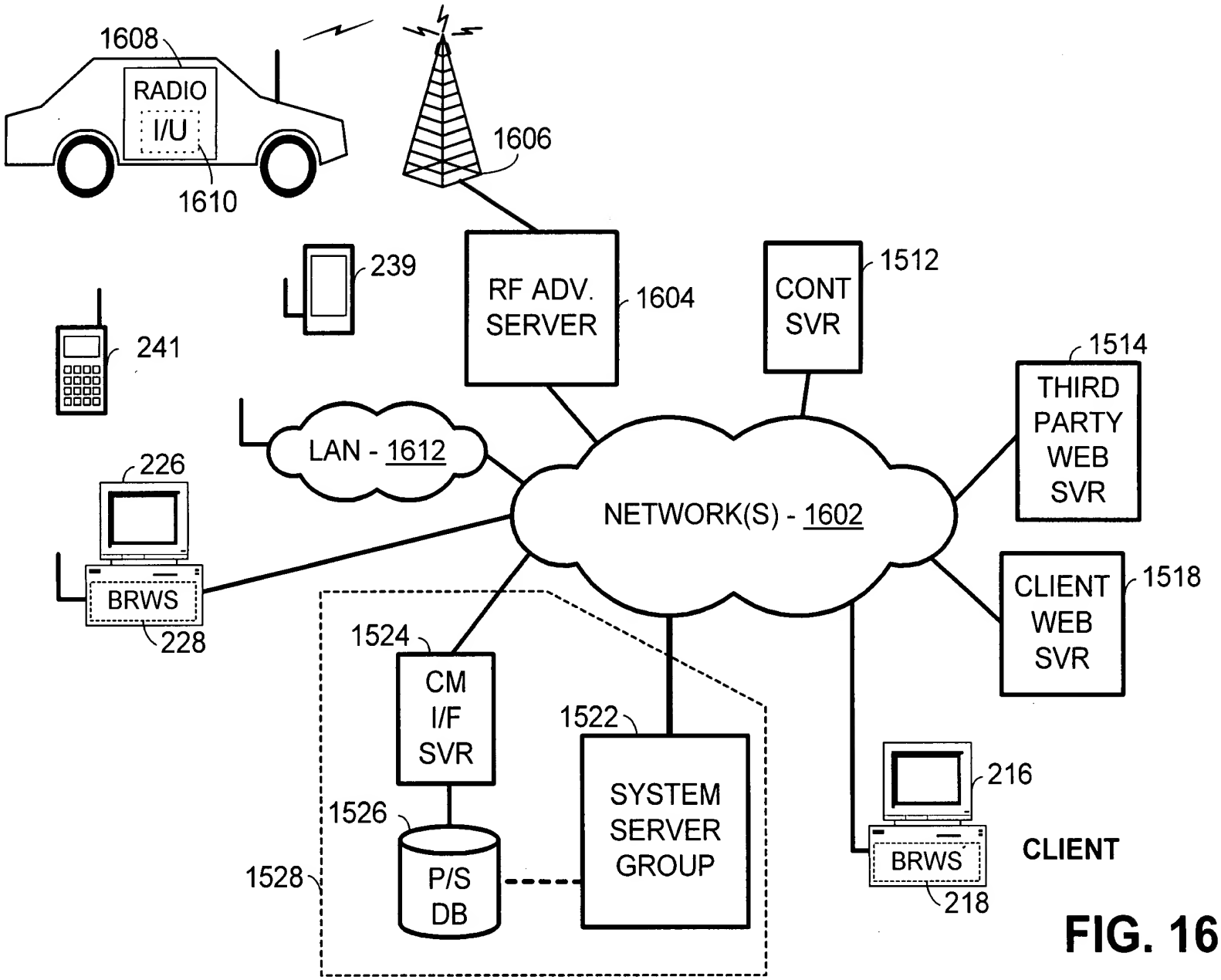
1608
RADIO
I/U
1610
1606
239
RF ADV.
SERVER
1604
CONT
SVR
1512
241
1514
THIRD
PARTY
WEB
SVR
LAN - 1612
226
NETWORK(S) - 1602
BRWS
228
1518
CLIENT
WEB
SVR
1524
CM
I/F
SVR
1522
SYSTEM
SERVER
GROUP
216
1526
1528
P/S
DB
BRWS
218
CLIENT

FIG. 16